

University of Memphis

## University of Memphis Digital Commons

---

Other Publications

Publications

---

5-6-2021

### Memphis State University, The Mathematics Department, 1912-1973: A Brief History

Harold Stephens

Follow this and additional works at: <https://digitalcommons.memphis.edu/speccoll-ua-pub-other>

---

#### Recommended Citation

Stephens, Harold, "Memphis State University, The Mathematics Department, 1912-1973: A Brief History" (2021). *Other Publications*. 28.

<https://digitalcommons.memphis.edu/speccoll-ua-pub-other/28>

This Text is brought to you for free and open access by the Publications at University of Memphis Digital Commons. It has been accepted for inclusion in Other Publications by an authorized administrator of University of Memphis Digital Commons. For more information, please contact [khggerty@memphis.edu](mailto:khggerty@memphis.edu).

THE MATHEMATICS DEPARTMENT, 1912-1973

A BRIEF HISTORY

By

Harold W. Stephens

MEMPHIS STATE UNIVERSITY

DEPARTMENT OF MATHEMATICS



## TABLE OF CONTENTS

	<u>Page</u>
PREFACE . . . . .	iii
A BRIEF HISTORY . . . . .	1
West Tennessee State Normal School . . . . .	1
West Tennessee State Teachers College . . . . .	3
Memphis State College . . . . .	5
Graduate Courses in Mathematics . . . . .	8
Memphis State University . . . . .	10
M.S.T. and M.S. Degrees in Mathematics . . . . .	14
Professional Activities Expanded . . . . .	17
Search for New Department Chairman . . . . .	23
Ph.D. Degree in Mathematics . . . . .	26
Honors Program . . . . .	29
Paper Read in Hungary . . . . .	32
NSF-SSTP Program in Mathematics . . . . .	34
APPENDIX: LIST OF FACULTY MEMBERS, 1973-74 . . . . .	36

## PREFACE

With the appointment in 1973 of a new President of Memphis State University, officials of the University requested that histories of the departments be written, whereupon Dr. Stanley Franklin, Chairman of the Mathematics Department, asked me to serve as department historian. In the past few weeks, I have attempted to compile a brief history of the Department of Mathematics from catalogs and other records, from various files in the Mathematics office, and from materials and recollections of my colleagues on the faculty. Highlights of the years from 1912 to the present have been mentioned in sub-heads to facilitate reading, since this history is too concise to be divided into chapters. Although every attempt has been made to eliminate errors, I realize it is too much to hope that such an attempt has been entirely successful. I am grateful to everyone who made suggestions to me and who provided materials covering courses and events of the years this department has been in existence. I wish to express special gratitude to Mrs. Mary Thorpe, departmental secretary, who managed to type this history in final form with me looking over her shoulder, and to my wife who assisted in typing the first draft.

August 9, 1973

  
Harold W. Stephens



# THE MATHEMATICS DEPARTMENT, 1912-1973

## A BRIEF HISTORY

By

Harold W. Stephens

The faculty and courses in the Mathematics Department of what is now Memphis State University have reflected over the years 1912 through the present time the purpose of the institution in a changing society. In the beginning, teaching was primarily geared to the preparation in Mathematics of teachers for the elementary and secondary schools of Tennessee. The post-World War II surge in college student population resulted in a necessary increase in faculty and an expansion of courses to fit the needs of a student body seeking academic preparation for varied professions. The 1970's have been marked by an increased departmental awareness of the importance of mathematical research, a new emphasis upon graduate degrees, and a growing national and international reputation for professional excellence.

### West Tennessee State Normal School

When the State Normal School for West Tennessee opened in Memphis on September 15, 1912, this department was designated as: "Mathematics, Including Commercial Courses and Penmanship." In charge of Mathematics courses was Dean of the College T. B. Loggins, who held an A.B. from Glasgow Normal School and

an A.M. from National Normal University. He had served as President of Dickson College and, later, Conductor of State Institutes in Tennessee. Mr. Charles B. Ijams, with an A.M. degree from Georgie Robertson College, was "assistant in Mathematics and Science." The Commercial Department--a department in practice before it became one in fact--was headed by Mr. J. M. Walters, who obtained his Master of Accounts and Bachelor of Science degrees from Union University.

Courses for the four-year academic program included advanced arithmetic and algebra the first year; advanced algebra the second year, with commercial arithmetic as an elective; plane geometry the third year, with bookkeeping an elective; and solid geometry the fourth year, with plane trigonometry an elective. The two-year normal course for the junior and senior years offered as mathematical electives to juniors a course in college algebra, and, to seniors, analytical geometry and teacher's arithmetic.

Classes were held in the main building, "Academic Hall," later to be known as the "Administration Building." This central building was to serve as headquarters for the Mathematics Department for 53 years.

Miss Charl Ormond Williams, a former teacher in rural schools and Principal of Germantown High School for six years, joined the faculty in the summer of 1913. Mr. Ijams taught some Mathematics courses in the summers of 1913 and 1914. In the fall of 1913, however, Miss Williams is listed as Dean Loggins' only "assistant in Mathematics" for the winter-spring terms.

In the summer of 1915, Dean Loggins was assisted by a "Dr. Hood," who failed to be included in the catalog list of faculty members, and by special instructor Wharton S. Jones, who taught Mathematics in the years 1915-19. Mr. Jones held B.A. and M.A. degrees from Kentucky University (later Transylvania College) and had served as President of Bourbon Female College. Commercial courses were now being taught in a separate Commerce Department, rather than in the Mathematics Department. Mr. W. M. McLaurin joined the staff as special instructor in Mathematics for a brief period in 1917.

Succeeding Dean Loggins as Chairman of the Mathematics Department in September 1920 was Professor O. Q. Poindexter, who held the B.S. from the University of Mississippi and the M.S. from Mississippi Agricultural and Mechanical College. He had been Bursar of West Tennessee State Normal for one year before assuming the duties of Chairman of the Mathematics Department. Assisting Professor Poindexter was Miss Virginia Proctor, who first taught here in 1915. She obtained her A.B. and A.M. degrees from Randolph-Macon Women's College in 1921. She served as Mathematics teacher until the fall of 1923, when Miss Jane Morrow became Mr. Poindexter's assistant.

#### West Tennessee State Teachers College

The name of the college underwent a change in 1925, becoming West Tennessee State Teachers College. Mr. P. L. Armstrong, who joined the faculty in 1924, became the third Chairman of the Mathematics Department, succeeding Mr. Poindexter. Professor Armstrong had received his A.B. and A.M. degrees from Southwestern

Presbyterian University.

Mr. Elmore Holmes was "assistant in Mathematics and Chemistry" for the summer of 1926 only, later joining the Chemistry Department. Mr. George W. Nicholson, who received his B.S. from the Citadel and his M.A. from the University of South Carolina, taught with Professor Armstrong one year, 1927-28.

Mrs. Paula Henry Pepper, with B.A. and M.A. from the University of Texas, joined the Mathematics faculty in 1928. Mr. Armstrong and Mrs. Pepper were the only Mathematics teachers in 1929-30.

Mr. T. P. Scott, who received his B.A. and M.S. from the University of Mississippi, joined the college in 1930. He and Mrs. Pepper taught in the fall of 1931: Solid geometry, college algebra, plane trigonometry, spherical trigonometry, teaching of arithmetic, plane analytic geometry, solid analytic geometry, differential calculus, calculus, integral calculus, differential equations, mathematical analysis of statistics, theory of equations, history of mathematics, teaching of junior high school mathematics, and materials and methods in high school mathematics.

Joining the faculty in 1931 and becoming the first Chairman of the Mathematics Department with a doctorate was Professor P. K. Smith, who held the B.S. and M.A. degrees from the University of South Carolina, the M.S. from the University of Chicago, and the Ph.D. (1931) from the University of Illinois. He had been Chairman of the Mathematics Department at Mississippi Women's College for two years.



Courses in the summer of 1932 included teaching of arithmetic, plane analytic geometry, differential calculus, and teaching junior high school mathematics.

Curriculum A was taught over four years, leading to the B.S. and preparation for elementary teachers; Curriculum B was a four-year series of courses leading to the B.S. and preparation for high school teachers; Curriculum C was a two-year sequence of courses to prepare elementary school teachers.

Dr. Smith did not serve as departmental chairman for long. He was succeeded by Professor J. F. Locke, who joined the faculty in 1932. The new Chairman of the Mathematics Department was the first Chairman who was a graduate of this college, having received his B.S. here in 1927. Professor Locke received the M.A. in 1929 from Vanderbilt University and the Ph.D. in 1933 from the University of Illinois.

Succeeding Mrs. Pepper as the second member of the Mathematics faculty was Miss Eucebia Shuler, who came in 1934. She held the A.B. degree from Winthrop College and the M.A. and Ph.D. degrees from George Peabody College for Teachers.

From the fall of 1936 through the spring of 1942, the two Mathematics teachers consisted of Dr. Locke and Mr. C. W. Stout, who received his B.S. from State Teachers College at Memphis in 1926, and his M.A. from Mercer University in 1931.

#### Memphis State College

On February 15, 1941, after an enlargement of the liberal arts curriculum, the name of the college was changed to Memphis State College. Mathematics courses offered in 1941 included

solid analytic geometry, differential calculus, calculus, integral calculus, and differential equations.

Mr. R. P. Clark, who had served as supervisor of Mathematics teacher training at the Training School since 1934, became a member of the Mathematics faculty of the college in 1942. He held the B.S. from Memphis State College (1928) and the M.A. from George Peabody College for Teachers.

When Dr. Locke responded to the nation's call to arms in World War II and went on military leave of absence January 1, 1944, Mr. Clark became Acting Chairman of the Mathematics Department.

In January 1946, Mrs. Elna Browning McBride joined the Mathematics Department, teaching half-time there and half-time in the Physics Department. With the summer term of 1946 and thereafter, her appointment was on a full-time basis in the Mathematics Department. She held the B.S. and M.S. degrees from the University of Tennessee, and had done graduate work in Mathematics at the University of Michigan.

In the Mathematics Department, under direction of Mr. Clark and Mrs. McBride, students were given a Mathematics inventory test to determine placement in Freshman Mathematics courses. The Mathematics curriculum at this time included three quarters of calculus at the junior level, and three quarters of differential equations at the senior level.

The academic year 1946-47 was a milestone for the Mathematics Department, with the addition of five new faculty members, including a new Chairman. Howard S. Kaltenborn, whose degrees

included a B.S. from Carnegie Institute of Technology in 1928, M.S. (1931) and Ph.D. (1934) from the University of Michigan, was named Chairman of the Mathematics Department. Mr. Clark left the department to become Acting Registrar of the college and, later, Dean of Admissions.

Mr. Sam Anderson, a former high school principal, joined the Mathematics faculty. He obtained his A.B. from Southwestern and his M.A. from George Peabody College for Teachers.

Three women new to the Mathematics faculty were Mrs. Lona C. Almond, who held the A.B. from Birmingham Southern College and the M.A. from the University of Alabama; Mrs. Helen Kaltenborn, with B.A. from Barnard College (1931), M.A. from Columbia University (1934), and Ph.D. in Biology from the University of Michigan (1936); and Mrs. Dorothy Wilson Clark, with B.S. and M.A. from George Peabody College for Teachers. Mrs. Kaltenborn was the wife of the Chairman and Mrs. Clark was the wife of the Registrar.

Mathematics enrollment in the fall of 1946 was 577, rising to 643 in the winter quarter of that year, the highest departmental enrollment ever reached up to that time.

Mr. Frank P. Thomas, a retired naval officer with a B.S. from the United States Naval Academy, joined the Mathematics staff in 1947. Succeeding Mr. Thomas in 1948 was Mrs. Blanche Crisp Badger, with A.B. from Winthrop College and M.A. from the University of Tennessee. Additions to the faculty the following year included John F. Williams (B.A., M.A. University of Tennessee)

and Thomas C. Yarbrough, Jr. (B.S., Memphis State College). Mrs. McBride was on leave of absence for a year.

#### Graduate Courses in Mathematics

Because of educational expansion in general, the General Assembly of 1949 authorized the Tennessee State Board of Education to establish graduate divisions in the state colleges under its jurisdiction. The College President's Council, studying the needs for graduate work in Tennessee, observed demands almost entirely from the teaching profession and recommended that Memphis State College be authorized to offer the degree of Master of Arts in the field of Education, with minors in approved subject matter fields.

The initial graduate program at Memphis State College required a major in Education with a minor in Biology, Chemistry, English or Social Sciences, and elective courses in other subjects, including the collateral area of Mathematics.

Because of this graduate program, offerings in Mathematics were extended in 1950 to include the following courses for graduate students and advanced undergraduates: history of mathematics, advanced calculus, probability, theory of equations, vector analysis, and college geometry. In the 1950's these courses were increased so that by 1959 the following courses were available to graduate students: history of mathematics, theory of numbers, algebraic theory (two sequences), college geometry, advanced calculus (two sequences), modern algebra for high school teachers, modern geometry for high school teachers, a seminar in the teaching of algebra, and a seminar in the



teaching of geometry.

Several new faculty members joined the Mathematics Department in the early 1950's. Among these were Larry H. Potter (A.B.E. and M.A., University of Florida) and Henry L. Reeves (B.S., University of Alabama; M.A., George Peabody College for Teachers). Mr. Potter came in 1952, and Mr. Reeves joined the staff in 1953.

Teaching for a year or two in the Mathematics Department during this period were: Gerhard Wollen (B.A., Luther College; M.S., State University of Iowa), who taught from 1951 to 1954; Mrs. Ruth Bannon (B.A., University of Toronto), 1951-54; Bevin K. Youse (B.S., Alabama Polytechnic Institute; M.S. University of Georgia), 1952-54; William D. Hagewood (B.A., David Lipscomb College; M.A., George Peabody College for Teachers), 1953-54; Haile D. Perry (B.S., M.A., Sam Houston State College), 1953-55; Robert Zeno Vause (B.S., University of South Carolina; M.A., Duke University), 1954-55; and Dale Woods (B.S., Southwest Missouri State College; M.S., Oklahoma Agricultural and Mechanical College).

In 1955, David T. Walker joined the Mathematics faculty. He held the B.S. from Wofford College (1949), and the M.S. (1951) and Ph.D. (1955) from the University of Georgia. That same year, Meredith Poole (B.A., M.A., University of Mississippi) joined the Mathematics Department. Mr. Gough Wheat (B.S., M.S., Memphis State College) became a special instructor, teaching Mathematics part-time for the department whenever increasing enrollment necessitated the addition of another faculty member.

Memphis State University

On July 1, 1957, the name of Memphis State College was changed to Memphis State University, by act of the state legislature. Mathematics courses offered to meet the needs of students in the three schools--Arts and Sciences, Education, and Business Administration--included the following: fundamental concepts of mathematics, basic mathematics, college algebra, trigonometry, analytic geometry, mathematics of finance, calculus, statistics, applied mathematics, history of mathematics, theory of numbers, algebraic theory, college geometry, and mathematical analysis.

In 1957, William Frank Bethany (B.S., Memphis State University) and Frances L. Street (B.S., Memphis State College; M.S., University of Tennessee) joined the Mathematics Department. Mr. Bethany received his M.S. degree in 1958 from the University of Mississippi.

The first Summer Institute for High School Teachers of Mathematics at Memphis State University was held from June 8 through July 10, 1959, with funds granted by the National Science Foundation. Professor Howard Kaltenborn directed this institute and others held at this university during the summers of 1960, 1962, 1964, and 1965. Teaching courses for this first NSF institute were, in addition to Dr. Kaltenborn: Professor M. L. MacQueen of Southwestern-at-Memphis; Professor Harold W. Stephens of New Jersey State College, Union, New Jersey; and Professor Henry L. Reeves of the Mathematics Department.

Courses in the Summer Institute for High School Teachers of Mathematics, June 13 - August 5, 1960, were taught by Professors Kaltenborn, MacQueen, Stephens, and Edgar D. Eaves of the University of Tennessee. In 1960, Professor Stephens also taught at a short-term area institute in Mathematics at Southwestern-at-Memphis, sponsored by the National Science Foundation.

In the summer of 1961, Howard Kaltenborn taught at an NSF institute for high school teachers at the University of New Mexico, and Harold Stephens taught at an NSF institute at Murray State College in Murray, Kentucky.

The NSF institute held June 18 - August 10, 1962, offered courses taught by Professors Kaltenborn, Stephens, and MacQueen.

In the fall of 1962, the Graduate School Bulletin listed Mathematics as a minor area in requirements for the Master of Arts degree, nine semester hours being required. Graduate courses in Mathematics at this time included foundations of mathematics, history of mathematics, theory of numbers, algebraic theory, matrix theory, geometric theory, advanced calculus, recent advances in general mathematics for high school science teachers, introduction to modern mathematics, modern algebra for high school teachers, modern geometry for high school teachers, probability and statistical applications, a seminar in the teaching of algebra, a seminar in the teaching of geometry, and a seminar in the teaching of advanced high school mathematics.

Several new members joined the Mathematics faculty in the late 1950's and early 1960's. Among them were John A. Winfrey

(B.S., U. S. Naval Academy; M.S., Memphis State University), who came in 1958; Ben Francis Prewitt (B.S., U.S. Naval Academy; M.S., Purdue University), who joined the staff in 1959; and Harold W. Stephens, who had been teaching at NSF institutes at Memphis State University for two summers. Professor Stephens obtained his B.S. degree in 1941 from New Jersey State College, and his M.A. in 1944 from Columbia University. He came in 1960.

In 1961, Mylo L. Heen (B.S., University of North Dakota; M.S. Purdue University), joined the staff. In 1962, Joe Albert McEachern (B.S., University of Tennessee; M.S., George Washington University) and Sherman William Parry (B.S. Union College; M.S., Purdue University) began teaching Mathematics.

Faculty members who taught Mathematics for a short time included Marvin Leroy Jacobs (B.S., U. S. Military Academy; M.S., University of Illinois), 1962-63; Melvin V. Foster (B.S., Southern State College; M.S., University of Arkansas), 1962-65; and Barbara Kate McBride (B.A., M.A., Memphis State University), 1962-63. Edward Newton Mosley (B.A., Arkansas College; M.S., University of Arkansas), taught from 1962 through 1968. Special instructors teaching part-time included William Farrimond (B.S., University of Illinois); Thomas Lowe, Jr. (B.A.E., Georgia Institute of Technology); J. Garfield Smith, Jr. (B.S.C.E., Louisiana State University); and Roger Van Brocklin (B.S.J., Northwestern University).

In the summer of 1962, Professor Stephens was visiting professor of Mathematics at Southwestern-at-Memphis, and Professor Kaltenborn returned to the University of New Mexico to teach at another NSF institute.



For the academic year 1963-64, the Mathematics Department obtained a grant from the National Science Foundation for an In-Service Institute for High School Teachers of Mathematics. Teaching courses from September 28 through May 10 were Professor Kaltenborn, who was also director of the institute, and Professors Stephens and Bethany.

From June 22 - August 14, 1964, courses for an NSF Summer Institute for High School Teachers of Mathematics at Memphis State University were taught by Professors Kaltenborn, Stephens, and Walker.

In December 1964, Harold W. Stephens received the Ed.D. degree in Mathematics from Columbia University.

From June 21 - August 13, 1965, Professors Kaltenborn and Stephens conducted an NSF Summer Institute for Junior High School Teachers of Mathematics at Memphis State University.

Thomas Roy Caplinger joined the Mathematics Department in 1964. He received his B.A. degree from Hendrix College in 1961, and his M.A. degree from Florida State University in 1962. In 1965, Hubert Lee Minton, Jr., with both B.A. and M.A. degrees from the University of Texas, joined the Mathematics faculty. Also coming in 1965 was Seok Pin Wong, who received his M.S. degree in 1962 from the University of Delaware.

Instructors teaching Mathematics at this time included William Farrimond, who previously taught part-time as a special instructor, 1963-64; Joseph Jerome Day (B.S., University of Georgia; M.S. Auburn University), 1963-66; Robert Dee McMillan (A.A., Oklahoma Christian College; B.A. Abilene Christian College; M.S., Oklahoma State University), 1963-64.

Other instructors, who came in 1965, were Larry Lanier Blanton (B.S., M.S., University of Arkansas), 1965-70; Frank Wayne Beaty (B.S.E., M.A., Missouri State Teachers College), 1965-68; Kendall Lee McDonald (B.A., M.S., Southern Illinois University), 1965-67; and Ronald L. Persky (B.S., Purdue University; M.A., University of Cincinnati), 1965-67.

Funds for an In-Service Institute for High School Teachers of Mathematics were obtained from the National Science Foundation and this institute was held September 25, 1965 - May 14, 1966, at Memphis State University. Teaching were Professors Kaltenborn, Stephens, and Walker.

Mrs. Elna McBride received the degree of Ed.D. in Applied Mathematics in April 1966 from the University of Michigan.

In the fall of 1966, a part of the Mathematics Department, including the administrative offices, was moved into the Smith Chemistry Building.

#### M.S.T. and M.S. Degrees in Mathematics

In the academic year 1966-67, Mathematics became a major field for the acquirement of the graduate degrees of Master of Science in Teaching and Master of Science.

Graduate Courses offered at this time were: history of mathematics, theory of numbers, linear algebra and matrix theory, real variables, complex variables, applied mathematics, topology, numerical analysis, workshop in junior high mathematics, workshop in senior high mathematics, introduction to modern mathematics, algebraic number theory, algebraic theory, abstract algebra, real variables, complex variables, calculus for secondary

teachers, special functions, geometric theory, algebraic geometry, and probability for secondary teachers.

Dr. Harold W. Stephens left the department to become Chairman of the Mathematics Department at what later became the University of North Carolina at Asheville. He returned to Memphis State University in the fall of 1967.

New faculty members joining the staff in 1966 were Sam Raymond Brooks (B.A., M.A., University of Texas); Wilson Ray Crisler (B.S., Arkansas State College; M.S., Kansas State College of Pittsburg), who taught from 1966 to 1970; Santiranjan Mukhoti (B.Sc., 1947, and M.Sc., 1952, University of Calcutta; Ph.D., 1965, from University of London), 1966-69; James Ira Sparks (B.S., Arkansas Polytechnic College; M.S., University of Arkansas), 1966-71; Robert Gilford Tvedt (B.S., Purdue University); and LaNelle Darlene Beegle (B.B.S., Lamar State College of Technology; M.S., Texas Agricultural and Mechanical University), 1966-68.

Seok Pin Wong received the Ph.D. degree in January 1967 from the University of Illinois.

Added to the staff in 1967 were Joseph Selwyn Rosen (B.S., M.S., Ph.D., Washington University), who taught in the year 1967-68 at Memphis State University; Ronald Lynn Foster (B.S., Murray State University; M. S., Memphis State University), 1967-68; Sarah Jenson Miravalle (B.S., University of Alabama; M. S., North Carolina State University), 1967-68; Charles Alvin Bullington (B.A., Arkansas College; M.S., Northeast Louisiana State College), 1967-71; Burla Jean Sims (B.S., Arkansas Polytechnic; M. A. University of Arkansas), 1967-70; and Wylie Wyatt Washburn (B.S.,

Arkansas State Teachers College; M.S., University of Arkansas), 1967-69.

Joong Fang (B.S., Institute of Technology, Seoul, Korea; M.A., Yale University; Ph.D., University of Mainz, Germany) held a joint-appointment as Professor of Philosophy and Mathematics, 1967-69.

In the summer of 1968, Dr. Harold W. Stephens taught at an NSF Summer Training Program in Mathematics for High Ability Secondary Students at Austin Peay State University in Clarksville.

Joining the Mathematics faculty in 1968 were Hugh Lansden McHenry (B.S., Tennessee Technological University; M. A., George Peabody College), and Robert Oxford Nason (B.S., Tri-State College; B. S., Henderson State Teachers College; M. S., University of Arkansas).

Also joining the staff this year were Joseph Bernard Harkin (B.S., St. Mary's College; M.S., Ph.D., Illinois Institute of Technology), 1968-69; and Mary Hughes Dauenhauer (B.A., Catherine Spalding College; M.S., Ph.D., University of Notre Dame), 1968-69.

Others teaching at this time included Carolyn Campbell (B.S., M. S., Memphis State University), 1968-69; Betty Louise Cocking (B.S., University of Illinois; M.A.T., Indiana University), 1968-70; David Lee Gable (B. A., Jacksonville State University; M. S., University of Mississippi), 1968-71; and Linda Helen Wilson (B.A., Mount Holyoke College; M. A., University of Colorado), 1968-70.

In June 1968, Sam Anderson retired from teaching Mathematics.



Dr. Elna McBride was presented the Distinguished Teacher Award at Memphis State University in 1968.

Mr. Minton was on leave from 1968 to 1970.

Mylo L. Heen was killed in an automobile accident in August 1968.

#### Professional Activities Expanded

Increased emphasis was placed upon professional activities, both inside and outside of the department.

A departmental colloquium committee was established in the year 1968-69 to organize an expanded program of visiting lecturers. Dr. Dauenhauer served as colloquium chairman. Lecturers included Dr. Hans Zassenhaus of Ohio State University, Dr. Karl Menger of Illinois Institute of Technology, Dr. Richard Cole of the University of Kansas, Dr. P. Krishnaiah of the Air Force Research Laboratory at Wright-Patterson Base in Ohio, and Dr. J. Fang of Memphis State University.

In the academic year 1968-69, Dr. Stephens taught a National Science Foundation In-Service Institute for High School Teachers of Mathematics in Forrest City, Arkansas, for the University of Arkansas.

From 1969 through 1971, Dr. David Walker of the Mathematics Department served as President of the Tennessee Mathematics Teachers Association.

In the summer of 1969, Harold Stephens was professor at the University of Arkansas' Institute for College Teachers of Methods Courses in Mathematics. Held on the Fayetteville campus, this institute was funded by a grant from the U. S. Department of Health, Education, and Welfare. In the academic year 1969-70,

Dr. Stephens again taught an NSF In-Service Institute for High School Teachers of Mathematics at Forrest City, sponsored by the University of Arkansas.

Everett Earl Stevenson (B.S., Buffalo State Teachers College in 1944; M.Ed., University of Houston in 1952; Ph.D., Ohio State University in 1961) joined the Mathematics faculty in September 1969. Two months after he began his departmental duties, Dr. Stevenson was appointed the first Associate Chairman of the Mathematics Department. He worked closely with Dr. Kaltenborn in scheduling and other departmental affairs.

James Anderson Stover, Jr. (B.S., 1959, from the University of Georgia; M. A., 1966, and Ph.D., 1969, University of Alabama), also joined the staff in 1969, as did George L. Finch (B. S., 1966; M.A., 1967; Ph.D., 1969, University of Alabama).

Also teaching Mathematics at this time were Clark Wayne Proctor (B.S., 1965; M. S., 1966; Ph.D., 1969, University of Houston), 1969-70; Jesse Allen Purifoy (B.A., 1963; M.A., 1965; Ph.D., 1969, University of Texas), 1969-71; James Thomas Darwin, Jr. (B.S., 1954; M.A., 1961; Ph.D., 1963, University of Texas), 1969-73; Judith Shanks Denton (B.A., Vanderbilt University; M.A., Columbia University), 1969-70; Jack Ellsworth Doyle (B.S.E.E., 1962; M.S., 1964; Ph.D., 1970, Texas Agricultural and Mechanical University), 1969-72; and Charlotte M. Mashburn (B.S., M.S., Memphis State University), 1969-73.

Hugh McHenry received the Ph.D. degree in 1970 from George Peabody College.

Chairman of the colloquium program in 1969-70 was Dr. Darwin. Visiting lecturers were Dr. Robert Plemmons, University of Tennessee; Dr. Donald A. Gardiner, Oak Ridge National Laboratory; Dr. Trevor Evans, Emory University and the Mathematical Association of America; Dr. James E. Jamison, University of Missouri at Rolla; Dr. Richard Schelp, Kansas State University; and Dr. John Haddock, Southern Illinois University. Colloquiums were also presented by Dr. Proctor and Dr. Finch, both of the Memphis State Mathematics Department.

Dr. Doyle proposed a National Science Foundation grant request for instructional scientific equipment, which was awarded in May 1970.

Among departmental members presenting papers during the 1969-70 year were Dr. Harold W. Stephens, at the regional meeting of the National Council of Teachers of Mathematics in Memphis in November, and Dr. Hugh McHenry, at a regional conference in Mathematics Education in February at Auburn University. In March, Dr. Seok Pin Wong lectured at Christian Brothers College, Memphis, and Dr. David Walker gave a talk at the meeting of the Mid-South Association of Independent Schools in Memphis. Dr. Howard Kaltenborn presented two lectures at a summer institute for secondary school teachers of Mathematics at the University of Tennessee in Knoxville in the summer of 1970.

Dr. Everett Stevenson served on a writing panel to prepare instructional materials in the physical sciences for the Educational Development Corporation at Newton, Massachusetts, in the summer of 1970.



John Winfrey retired in 1970, after twelve years of teaching in the Mathematics Department.

In the fall of 1970, four young men with doctorates joined the Mathematics staff. John R. Haddock received his B.A. in 1966, his M.S. in 1968, and his Ph.D. in 1970 from Southern Illinois University. James E. Jamison held the B.S., 1965; M.S., 1967, and Ph.D., 1970, from the University of Missouri at Rolla. Cecil C. Rousseau obtained his B.S. in 1960 from Lamar State College of Technology, and his M.S., 1962, and Ph.D., 1968, from Texas Agricultural and Mechanical University. Richard H. Schelp received the B. S. from Central Missouri State College in 1959, and the M.S., 1961, and Ph.D., 1970, from Kansas State University.

Instructors that year included Florence S. Bryan (B.S., University of Southern Mississippi; M.S., Louisiana State University), 1970-71; John W. Kendall (B.S., Murray State University; M.S., Memphis State University), 1970-72; and Jerry A. Mathews (B.S., M.S., Memphis State University), 1970-71.

Dr. Stephens, colloquium chairman, arranged for lectures by Dr. R. J. Kryscio, State University of New York at Buffalo; Dr. Ralph Faudree, University of Illinois; and Dr. Richard J. Fleming, University of Missouri. Colloquiums were also conducted by Dr. Darwin, Dr. Rousseau, Dr. Walker, Dr. Jamison, Dr. Stover, and Dr. Purifoy, all of the Mathematics Department, Memphis State University.

Dr. Elna McBride's book, Obtaining Generating Functions, was published by Springer-Verlag of Heidelberg, Germany, in the spring of 1971.

Members of the department gave talks at a number of high schools in Memphis and for various organizations. Dr. Stevenson spoke at an In-Service Program for Memphis City Schools in August, and Dr. McHenry gave talks at Mathematics In-Service Programs for teachers of Algebra II and Geometry. Sherman W. Parry was general chairman of the statewide high school Mathematics contest sponsored by the Tennessee Mathematics Teachers Association.

In May 1971, the Mathematics Department moved into the new Mathematics and Foreign Languages Building, containing classrooms, lecture halls, room for a library, a computing laboratory, and offices for the faculty, graduate students, and department administration. A new high speed computer serving all departments of the university was located in the main University Computer Center. Departments, including the Mathematics Department, were connected to the computer by teletype or other terminals.

In the academic year 1970-71, forty-eight bachelor's degrees were granted at Memphis State University to Mathematics majors. Twelve master's degrees were presented in Mathematics.

Enrollment in the Mathematics Department rose from 4,210 in 1968; 4,418 in 1969; and 4,345 in 1970, to a total of 4,589 in the fall of 1971.

Ralph Jasper Faudree (B.S., 1961, from Oklahoma Baptist University; M.S., 1963, and Ph.D., 1964, Purdue University), and Richard Joseph Fleming (B.S., 1960, Northwest Missouri State College; M.S., 1962; Ph.D., 1965, Florida State University) joined the Mathematics faculty in the fall of 1971.

Geoffrey R. Webb (B.A., University of South Florida in 1966; M.A., 1969; Ph.D., 1971, Duke University) taught Mathematics from 1971 until May 1973.

The colloquium committee, chaired by Dr. Stephens, arranged for lectures by Dr. Harry Robinson of the University of Tennessee Medical Units in Memphis, Dr. Robert L. Hemminger of Vanderbilt University, Dr. Donald B. Coleman, University of Kentucky; Dr. Donald L. Gaitros, University of Missouri at Rolla; Dr. Richard L. Tangeman, Arkansas State University; Mr. Murry S. Klamkin, Ford Scientific Research; Mr. Billy G. Claybrook, Southern Methodist University; Dr. B. L. Sanders, Texas Christian University; Dr. Raymond E. Smithson, University of Wyoming; Dr. Lida K. Barrett, University of Tennessee at Knoxville; Dr. Stanley Franklin, Carnegie-Mellon University; Dr. W. A. Thompson, University of Missouri at Columbia; and Mr. Michael Minkoff, University of Wisconsin.

Colloquiums were also presented by Memphis State Mathematics faculty members Dr. Schelp, Dr. Rousseau, and Dr. Webb.

A reciprocal program was developed through the support and cooperation of staff members from Arkansas State University, Southwestern, and the University of Mississippi, with the department, whereby speakers could be exchanged between participating institutions. Under this new program, Dr. Rousseau presented a colloquium at the University of Mississippi in October 1971; Dr. Fleming spoke at that university in February 1972 and at Arkansas State University in April 1972, and Dr. Faudree presented a colloquium at Southwestern-at-Memphis in March 1972.



Talks on aspects of Mathematics were presented at a National Science Foundation series of Science, Mathematics, and Engineering Seminars for superior senior high-school students at Christian Brothers College in Memphis by Dr. Faudree, Dr. Haddock, Dr. Rousseau, Dr. Stephens, and Dr. Walker.

Speaking at the Tennessee Mathematics Teachers Association in Memphis were Dr. Fleming and Dr. McHenry. At a regional convention of the National Council of Teachers of Mathematics in Birmingham, Alabama, Dr. McHenry read a paper. Dr. Rousseau presented a paper at Middle Tennessee State University in Murfreesboro in November 1971.

A number of talks were presented by the Mathematics faculty at high schools in and near Memphis.

Working on assignment for mathematical journals were Dr. Rousseau, Collaborating Editor of "Problems and Solutions," Siam Review, and Dr. Faudree, reviewer for Zentralblatt fur Mathematik, Proceedings of the American Mathematical Society, and the Mathematical Association of America Monthly.

A graduate student colloquium was initiated in the fall of 1971. Talks of a historical nature were given by Harold Katz, James Chiu, and Michael Cartwright, graduate students in the department.

#### Search For New Department Chairman

With the announcement by Dr. Howard S. Kaltenborn that he would retire as Chairman of the Mathematics Department in the spring of 1972, the President appointed a Search and Screening

Committee to interview candidates and recommend a new Chairman. Dr. Victor Feisal, then Associate Dean of Arts and Sciences, was chairman of this committee, which consisted of two members of each professorial rank: Dr. Elna McBride and Dr. Harold Stephens, professors; Dr. James Darwin and Dr. Richard Fleming, associate professors; Dr. Richard Schelp and Mr. Sherman Parry, assistant professors. Dr. John Guyon, Chairman of the Department of Chemistry, served as ex officio member.

In the succeeding months, committee members corresponded with applicants and conducted personal interviews.

Recommended for the position of new Chairman of the Department was Dr. Stanley Phillip Franklin, internationally known topologist at Carnegie-Mellon University. In June 1972, Dr. Franklin assumed this position. He became the seventh Chairman of the Mathematics Department (excluding Acting Chairman R. P. Clark) and the second Chairman to be an alumnus of Memphis State University.

Stanley Franklin received his B. S. degree in 1959 from Memphis State University; his M.S. in 1962, and Ph.D. in 1963, both from the University of California at Los Angeles.

Appointment of this new Chairman intensified activity in mathematical research and professional accomplishments among members of the department. Dr. Franklin brought with him to Memphis State the journal General Topology and Its Applications. He has been Managing Editor of this professional journal since its origin.



Also joining the Mathematics faculty in 1972 was M. Rajagopalan who held the B. S. degree from Andhra University in India, 1950, and the M.A., 1961, and Ph.D., 1963, from Yale University.

Instructors for 1972-73 included Charlotte Ridgway (B.A., Southwestern-at-Memphis; M.S., Memphis State University). Karen Bowyer, who possessed the Ed.D. degree, taught Mathematics in the fall term of 1972. Twenty-one graduate assistants were appointed in the Mathematics Department, 1972-73.

Dr. Howard Kaltenborn's retirement was effective in June 1972, after twenty-six years as professor and Chairman of the Mathematics Department. When he came, he was the only member with a doctor's degree in Mathematics among six teachers in the department. In the year of his retirement, the department contained thirty-four faculty members, with twenty-one holding doctorates in Mathematics.

Among these was Thomas Caplinger, who received his Ph.D. degree in Mathematics in 1972 from the University of Mississippi.

While serving as Chairman, Dr. Kaltenborn wrote a book, Meaningful Mathematics, published by Prentice-Hall of New York and used in Mathematics survey courses in the early 1950's. Later, he collaborated with his wife, Dr. Helen Kaltenborn, and with Professor Sam Anderson, in writing Basic Mathematics (Ronald Press of New York, 1958), a textbook used in some Mathematics classes at Memphis State University for a number of years.

Dr. Helen Kaltenborn retired from the Mathematics Department in August 1972.

Under the leadership of Professor Stanley Franklin, the Mathematics Department continued many programs already in progress or planned, and began to achieve new recognition in various fields of Mathematics research, teaching, and professional growth.

#### Ph.D. Degree in Mathematics

In the spring of 1972, Dr. Everett Stevenson submitted a proposal for the Ph.D. degree in Mathematics, which was approved by the Tennessee Commission on Higher Education on May 19, 1972, and immediately implemented. The area of concentration for the doctorate was designated as College Teaching of Mathematics.

At that time the department was offering courses of study leading to two graduate degrees: Master of Science, with a major in General Mathematics, in Statistics, or in Computer Science, with a collateral area in any department in which the student was qualified to do graduate work; and Master of Science in Teaching, with a major in Mathematics and a collateral area approved by the student's adviser.

Graduate courses included philosophy of mathematics, history of mathematics, special problems in mathematics, theory of numbers, linear algebra, abstract algebra, advanced calculus, complex variables, applied mathematics, topology, advanced computer programming, numerical analysis, workshop in junior high mathematics, workshop in senior high mathematics, introduction to modern mathematics, algebraic number theory, linear algebra for teachers, abstract algebra for teachers, real

variables, functional analysis, calculus for secondary teachers, special functions, advanced differential equations, stability theory, point set topology, geometry theory, algebraic geometry, modern differential geometry, and probability for secondary teachers.

Other graduate courses listed were mathematical foundations of computer science, automata theory, advanced numerical analysis, systems simulation, linear programming techniques, non-linear programming techniques, computer programming for teachers, problems in computer science, seminar in computer science, special problems in mathematics, practicum in college teaching of mathematics, topics in algebra, group theory, homological algebra and ring theory, field theory, lattice theory, topics in analysis, measure theory, functional analysis, optimization techniques, algebraic topology, topics in geometry and topology, topics in probability and statistics, topics in computer science, advanced seminar in mathematics, special problems in mathematics, mathematical reading and research, advanced seminar in mathematics education, topics in differential equations, and topics in applied mathematics.

Courses in statistics included statistical methods, introductory statistical theory, probability, quantitative statistical methods, stochastic processes, analysis of variance, experimental design, least squares and regression analysis, sampling techniques, nonparametric statistical methods, theory of linear models, theory of nonparametric statistics, inference theory, and advanced topics in statistics.

Contributing largely to the approval of the Ph.D. degree in Mathematics was the newly equipped Mathematics Library in the Mathematics and Foreign Languages Building.

The library committee in the year 1969-70, consisting of Professors Parry, Darwin, Finch, Purifoy, and Wong, increased holdings of reference books and journals for the Mathematics Section of the main university library. In 1970-71, the committee of Professors Darwin, Finch, Haddock, Parry, Schelp, and Wong acquired more books and periodicals and made plans for a departmental library in the new building.

The work of these library committees culminated in the accomplishments of the next two committees, of which Dr. Ralph Faudree was chairman. Working with him in 1971-72 were Professors Fleming, Haddock, Wong, Parry, and Darwin. In this year the committee continued intensive efforts to enlarge the mathematical collection. The entire budget of \$18,550 was spent for 400 book orders, in addition to books obtained through the automatic acquisition policy of the Memphis State University library, and 146 journal orders, mostly back files. In the spring of 1972, the library had 162 journals and approximately 5,500 books in Mathematics.

In the summer of 1972 and the academic year 1972-73, the Mathematics Department Library became a reality under the direction of Professors Faudree, Fleming, Haddock, Parry, and Darwin. Dr. Faudree and Dr. Fleming wrote the proposal stating the rationale for having Mathematics journals and books placed in the Mathematics Library in the Mathematics and Foreign Languages Building. The proposal was approved in August 1972.



Journals were received for the departmental library in February 1973, and some books arrived in July 1973.

An ad hoc committee, appointed by the university librarian and consisting of Professors Faudree, Fleming, and McBride, served as liaison with other departments in determining the selection of books and journals to be placed in the departmental library and of those to remain on the shelves of the main university library.

#### Honors Program

In the spring and summer of 1972, a committee consisting of Dr. Harold W. Stephens, chairman; Dr. C. C. Rousseau, Dr. Richard Schelp, and Dr. James Jamison, formed criteria for an Honors Program in Mathematics at Memphis State University. The committee submitted a proposal to university officials on June 20, 1972. The proposal was approved for implementation in the fall of 1973.

At this time all students at the university majoring in Mathematics had to successfully complete a prescribed sequence of five calculus courses, totaling eighteen semester hours. Advanced credit toward this requirement could be earned through participation in the Advanced Placement Program. An additional eighteen semester hours of upper division electives were required in an area of concentration chosen from the following four areas: (1) algebra and analysis, (2) applied mathematics, (3) probability and statistics, and (4) numerical analysis and computer science. Students minoring in Mathematics had to complete at

least eighteen semester hours of course work, including either the three prescribed basic calculus courses or two upper division courses in Mathematics.

Under the Honors Program in Mathematics, designed for the highly motivated student who has demonstrated superior ability in secondary school Mathematics, a student will explore in depth the fundamental concepts of contemporary Mathematics in seminar-type courses over the first two years. During the last two years, he will have latitude in constructing his own advanced program.

In 1973 offerings of the Mathematics Department covered a full range of course work in Mathematics, computer science, and statistics. These courses were designed to satisfy requirements in teacher education, engineering, business, and all of the liberal arts programs of study.

The Colloquium Committee of 1972-73 arranged for a number of lectures by outstanding mathematicians. Dr. Fleming was chairman of this committee. Among the speakers were Dr. Richard Bellman, professor of Mathematics, medicine and engineering at the University of Southern California; Dr. R. D. Anderson, Louisiana State University; Dr. Bernard Banaschewski, McMaster University; Dr. Per Enflo, University of California at Berkeley; Dr. Howard Fehr, Columbia University; Dr. Laszlo Fuchs, Tulane University; Dr. J. K. Hale, Brown University; Dr. Paul Halmos, University of Indiana; Dr. Walter Rudin, University of Wisconsin; Dr. Thomas Saaty, University of Pennsylvania; and Dr. Laszlo Lovasz, visiting professor of Mathematics at Vanderbilt University, on leave from Eotvos Lorand University in Budapest, appointed research

mathematician of the Mathematical Institute of the Hungarian Academy of Science beginning in the fall of 1973.

Others presenting papers at departmental colloquiums were Dr. Barbara Thomas, University of Pittsburgh; Dr. Angelo Margarís, Southwestern-at-Memphis; Dr. G. S. Ladde, University of Rhode Island; Dr. Edward A. Sallin, and Dr. B. J. Trawinski, both of the University of Alabama at Birmingham; Dr. T. G. Windeknecht, Georgia Institute of Technology; Dr. J. K. Ghosh, University of Illinois; Dr. Henry D'Angelo, Michigan Technological University; Dr. H. Subrahmanian, State University of New York at Buffalo; Dr. J. A. Bondy, University of Waterloo; Dr. Guari L. Ghai, Iowa State University; Dr. Stephen Bernfeld, University of Missouri; and Dr. Hubert J. Chen, Ohio State University.

Staff members presenting colloquiums at Memphis State University in this period were Dr. M. Rajagopalan, Dr. Thomas Caplinger, Dr. George Finch, and Dr. C. C. Rousseau.

Papers on Mathematics were presented at other institutions in 1972-73 by Dr. Fleming, at Western Kentucky University; Dr. Jamison, at the University of Missouri at Rolla; Dr. Caplinger, at Eastern Kentucky University; Dr. Haddock, at Florida State University; and Dr. Rajagopalan, at Temple University. Dr. Franklin and Dr. Rousseau read papers on programs at the University of Mississippi.

In January 1973, Dr. Barbara Thomas joined the Mathematics faculty. She received her B.A. in 1964 from Reed College; her M.S. in 1969, and her Ph.D. in 1972, both from Carnegie-Mellon University.

Many members of the Mathematics Department read papers at professional meetings this year. Dr. Fleming and Dr. Rajagopalan read papers at a sectional meeting of the American Mathematical Society in November 1972 on the campus of the University of North Carolina at Chapel Hill. Dr. Rajagopalan read a paper at a topology conference in Pittsburgh, Pennsylvania, in December 1972. Dr. Haddock presented a paper at a regional meeting of the American Mathematical Society in October 1972 at Brown University.

At the national meeting of the American Mathematical Society in Dallas, Texas, in January 1973, papers were read by Dr. Schelp, encompassing results of research by himself and Dr. Faudree; Dr. Caplinger, Dr. Rajagopalan, Dr. Thomas, Dr. Stover, and graduate student Steve Purisch. At the Dallas meeting, Dr. Rousseau also was on the program, working with the U.S.A.-Mathematical Olympiad, of which he has been a member since August 1972.

#### Paper Read In Hungary

At the International Conference on Finite and Infinite Sets in Keazthely, Hungary, June 25 - July 1, 1973, Dr. Ralph Faudree presented a paper reflecting research done jointly by himself and Dr. R. H. Schelp. The paper, "Ramsey Type Results," is to be published in the proceedings of the conference. Dr. Schelp and Dr. C. C. Rousseau also attended the conference in Hungary.

Dr. Stanley Franklin and Dr. Barbara Thomas attended a Special Symposium on Topology on the campus of Southern Illinois University in Carbondale and presented a paper reflecting their



joint research.

Dr. Thomas also presented a paper at Carnegie-Mellon University and a paper for TOPO '72 during this period.

At the Combinatoric Conference at Memphis State University in August 1972, at which Dr. Marshall Hall, Jr. of the California Institute of Technology was guest speaker, Dr. Rousseau presented a paper.

Other conferences at which staff members discussed topics in Mathematics included the National Council of Teachers of Mathematics meeting in Memphis in May 1972 where Dr. Stephens and Dr. McHenry read papers. At the meeting of the Tennessee Mathematics Association in Knoxville, Dr. McHenry spoke. As Vice President for College for the TMTA, Dr. McHenry is in line for the presidency in 1974. Dr. Stephens also gave talks for In-Service Workshops of Memphis City Schools and Shelby County Schools.

Dr. Rajagopalan was referee in this period for several journals, including the Analysis Section and the Topology Section of The Proceedings of the American Mathematical Society.

Mathematics Department Faculty published articles in a large number of professional journals in the late 1960's and the early 1970's, including The American Mathematical Monthly, The Journal of Combinatorial Theory, Proceedings of the American Mathematical Society, Pacific Journal of Mathematics, Journal of Mathematical Analysis and Applications, Applicable Analysis, and Discrete Mathematics.

Several members of the Mathematics faculty spoke at high schools in this area, and Mr. Joseph McEachern gave a talk at Lane College in Jackson. Among those speaking before MAC-O-TOM (the Memphis Area Council of Teachers of Mathematics, which is affiliated with the National Council of Teachers of Mathematics) were Dr. Rousseau, Dr. Caplinger, Dr. Schelp, and Dr. Fleming. Treasurer of MAC-O-TOM in this period was Sherman Parry.

In the year 1972-73, several changes occurred in the clerical staff of the Mathematics Department. Mrs. Sarah Crizer, secretary to Dr. Kaltenborn for five years, retired in December, 1972. Succeeding her was Mrs. Mary Thorpe. Mrs. Jo Nelle (Jan) McDowell came in January, 1973 to assist in the typing of articles for the staff and the topology journal edited by Dr. Franklin.

Dr. Franklin named two members of the Mathematics Department for the honor of being Outstanding Educators of 1973. They were Dr. Elna McBride and Dr. Ralph Faudree.

#### NSF-SSTP Program in Mathematics

The first Student Science Training Program in Mathematics, sponsored by the National Science Foundation, was held from July 9 through August 10, 1973, at Memphis State University. Director of the Institute was Dr. Harold W. Stephens. On the teaching staff were Dr. Stephens, Dr. McHenry, and Dr. Stevenson.

Forty students who were to be seniors in the 1973-74 year attended the institute. Speakers at special seminars for the students were Dr. Rousseau and Dr. Fleming.

The major objectives of this training program were to afford the opportunity to selected students with superior talent and background in Mathematics to take modern Mathematics courses with university professors. The courses covered material not included in any regular high school program.

Added to the Mathematics Department in the year 1973-74 were Stephen Bernfeld (B.S., Rensselaer Polytechnic Institute, 1965, and Ph.D., University of Maryland, 1969), Hubert Chen (B.A., National Taiwan University, 1967; M.A., 1971; Ph.D., 1973, University of Rochester); Henry D'Angelo (B.S., City University of New York, 1955; M.S., Kansas State University, 1957; Ph.D., University of Wisconsin, 1964); Thomas Windeknecht (B.S.E., 1958; M.S.E., University of Michigan, 1959; Ph.D., Case Institute of Technology, 1964), and Gregory L. Naber (B.S., 1970; M.S., 1971, and D.A., 1973, all from Carnegie-Mellon University).

The year 1973-74 projection includes thirty-four faculty members with twenty-three having doctorates in Mathematics, and twenty-five graduate assistants in Mathematics. Five of these graduate assistants result from the conversion of one faculty position to assistantships.

Change, growth, and service to society continue as the Mathematics Department of Memphis State University strives to meet the needs of the students, to attain stature in the academic community, and to achieve prominence in the areas of teaching and research.

\* \* \* \*

## APPENDIX

Faculty - Department of Mathematics - 1973-74

<u>NAME</u>	<u>TITLE</u>	<u>HIGHEST DEGREE</u>
Stephen Bernfeld	Assistant Professor	Ph.D. Mathematics
William Bethany	Assistant Professor	M.S. Mathematics
Sam R. Brooks, Jr.	Assistant Professor	Ph.D. Mathematics
Thomas R. Caplinger	Assistant Professor	Ph.D. Mathematics
Hubert Chen	Assistant Professor	M.A. Mathematics
Henry D'Angelo	Professor	Ph.D. Elec. Eng.
Ralph J. Faudree	Associate Professor	Ph.D. Mathematics
George L. Finch	Assistant Professor	Ph.D. Mathematics
Richard J. Fleming	Associate Professor	Ph.D. Mathematics
Stanley P. Franklin	Professor	Ph.D. Mathematics
John R. Haddock	Assistant Professor	Ph.D. Mathematics
James E. Jamison	Assistant Professor	Ph.D. Mathematics
Elna B. McBride	Professor	Ed.D. Applied Mathematics
Joe McEachern	Assistant Professor	M.S. Engineering
Hugh L. McHenry	Associate Professor	Ph.D. Mathematics
Hubert L. Minton	Assistant Professor	M.A. Mathematics
Gregory L. Naber	Instructor	D.A. Mathematics



<u>NAME</u>	<u>TITLE</u>	<u>HIGHEST DEGREE</u>
Robert O. Nason	Assistant Professor	M.S. Computer Sci.
Sherman W. Parry	Assistant Professor	M.S. Mathematics
Meredith Poole	Assistant Professor	M.A. Mathematics
Larry H. Potter	Assistant Professor	M.A. Mathematics
Ben F. Prewitt	Assistant Professor	M.S. Mathematics
M. Rajagopalan	Professor	Ph.D. Mathematics
Henry L. Reeves	Assistant Professor	M.A. Mathematics
Cecil C. Rousseau	Assistant Professor	Ph.D. Mathematics
Richard H. Schelp	Assistant Professor	Ph.D. Mathematics
Harold W. Stephens	Professor	Ed.D. Mathematics
Everett E. Stevenson	Professor	Ph.D. Mathematics
James A. Stover	Assistant Professor	Ph.D. Mathematics
Frances L. Street	Assistant Professor	M.S. Education
Barbara S. Thomas	Assistant Professor	Ph.D. Mathematics
David T. Walker	Professor	Ph.D. Mathematics
Thomas G. Windeknecht	Professor	Ph.D. Mathematics
Seok P. Wong	Associate Professor	Ph.D. Mathematics